Safety Attribute Inspection (SAI) Data Collection Tool 3.2.2 Flight / Load Manifest / Weight and Balance Control (OP)

ELEMENT SUMMARY INFORMATION

Purpose of This Element (Certificate Holder's responsibility):

 To ensure that the Certificate Holder loads its aircraft according to the approved loading plan, the aircraft are loaded within the weight and balance limitations of the Aircraft Flight Manual, and the load manifest is accurately prepared and retained in accordance with 14 CFR 121.695.

Objective (FAA oversight responsibility):

- To determine if the Certificate Holder's Flight / Load Manifest / Weight and Balance Control process meets all applicable of the Federal Aviation Regulations and FAA policies.
- To determine if the Certificate Holder's Flight / Load Manifest / Weight and Balance Control process incorporates the System Safety Attributes.
- To identify any shortfalls in the Certificate Holder's Flight / Load Manifest / Weight and Balance Control process.

Specific Instructions:

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SUPPLEMENTAL INFORMATION

Specific Regulatory Requirements (SRRs):

- SRRs:
 - 119.43(b)
 - 119.43(b)(1)
 - 119.43(b)(2)
 - 119.43(c)
 - 121.135(a)(1)
 - 121.135(b)(1)
 - 121.135(b)(2)
 - 121.135(b)(20)
 - 121.135(b)(3)
 - 121.135(b)(9)
 - 121.153(b)
 - 121.198(c)
 - 121.190(0

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121.693(a)
121.693(b)(1)
121.693(b)(2)
121.693(b)(3)
121.693(b)(4)
121.693(c)
121.693(d)
121.693(e)
121.695(a)(1)
121.695(a)(2)
121.695(a)(3)
121.695(b)
121.697(a)(1)
121.697(a)(2)
121.697(a)(3)
121.697(a)(4)
121.697(a)(5)
121.697(b)
121.697(c)
121.697(d)
121.697(e)(1)
121.697(e)(2)
E.096Weight and Balance Control Procedures
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Related CFRs & FAA Policy/Guidance:

- Related CFRs: Intentionally left blank
- FAA Policy/Guidance:
 FAA Order 8400.10, Volume 3, Chapter 15
 FAA Order 8400.10. volume 6, Chapter 2

FAA Order 8430.17, Chapter 9, Air Carrier Operations Bulletin (ACOB) NO. 8–76–3 Advisory Circular AC 120–27C

SAI SECTION 1 - PROCEDURES ATTRIBUTE

Objective: Procedures, instructions, and information contained in the certificate holder's manual are documented methods for accomplishing a process. Policies contained in the certificate holder's manual should establish the certificate holder's compliance posture. Policies may not be stand-alone statements but may be imbedded within procedures, instructions, or information regarding a particular regulatory requirement. The questions in this section of the data collection tool (DCT) are designed to assist the inspector in determining if the certificate holder's manual has documented or prescribed methods of accomplishing the process requirements that provide answers to the associated questions regarding who, what, when, where and how. This section contains policy questions, procedural questions, and instructional or informational questions pertaining to various types of certificate holder requirements such as actions, prohibitions, or resources (i.e., personnel, facilities, equipment, technical data, etc.).

Tasks

To meet this objective, the inspector must accomplish the following tasks:

- Review the information listed in the Supplemental Information section of this data collection tool.
- Review the duties and responsibilities for management and other personnel identified by the Certificate Holder who accomplish the Flight / Load Manifest / Weight and Balance Control process.
- Review the Certificate Holder's manual to ensure that it contains policies, procedures, instructions and information necessary for the Flight / Load Manifest / Weight and Balance Control process.

Questions

To meet this objective, the inspector must answer the following questions:

- Does the Certificate Holder's manual content meet the specific regulatory and FAA policy requirements for a Flight / Load Manifest / Weight and Balance Control process:
- 1.1 Does the Certificate Holder's manual contain general policies for the Flight / Load Manifest / Weight and Balance Control process that comply with the specific regulatory requirements?

SRRs: 121.135(b)(1); 121.153(b); 121.198(c); 121.665;

121.693(a); 121.693(b)(1); 121.693(b)(2); 121.693(b)(3);

121.693(b)(4); 121.693(c); 121.693(d); 121.693(e);

121.695(a)(1); 121.695(a)(2); 121.695(a)(3); 121.695(b);

121.697(a)(1); 121.697(a)(2); 121.697(a)(3); 121.697(a)(4);

121.697(a)(5); 121.697(b); 121.697(c); 121.697(d);

121.697(e)(1); 121.697(e)(2)

Related Design JTIs:

1. Check that the Certificate Holder's manual includes a policy that states that it will use an approved weight and balance control system based on average weight to comply with applicable airworthiness requirements and operating limitations.

Sources: 121.153(b); 121.135(b)(1) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 2.1.5-aw; 2.1.5-op; 3.1.3-op; 3.1.8-op; 7.1.4-op;

7.2.1-op

2. Check that the Certificate Holder's manual includes a policy that states that it will use an approved weight and balance

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□ Yes

☐ No, Explain

		control system based on assumed weight to comply with applicable airworthiness requirements and operating	
		limitations.	
		Sources: 121.153(b); 121.135(b)(1)	
		Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw;	
		2.1.2-op; 2.1.5-aw; 2.1.5-op; 3.1.3-op; 3.1.5-op; 3.1.8-op;	
		7.1.4–op; 7.2.1–op	
	3.	Check that the Certificate Holder's manual includes a policy	
		that states that it will use an approved weight and balance	
		control system based on estimated weight to comply with	
		applicable airworthiness requirements and operating	
		limitations.	
		Sources: 121.153(b); 121.135(b)(1)	
		Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.5-aw; 2.1.5-op; 3.1.3-op; 3.1.5-op; 3.1.4-op; 7.2.1-op	
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	4.	Check that the Certificate Holder's manual includes a policy that establishes that either actual or approved average	
		passenger and crew weights are used in the weight and	
		balance control program to ensure that aircraft are loaded	
		within the gross weight and center of gravity limitations.	
		Sources: 121.135(b)(1); E.096a	
		Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.5-aw;	
		2.1.5-op; 3.1.3-op; 3.1.5-op; 3.1.8-op; 7.1.4-op; 7.2.1-op	
	5.	Check that the Certificate Holder's manual includes a policy	
		that establishes that either actual or approved baggage	
		weights are used in the weight and balance control program	
		to ensure that aircraft are loaded within the gross weight and	
		center of gravity limitations.	
		Sources: 121.135(b)(1); E.096b	
		Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.5-aw;	
	_	2.1.5-op; 3.1.3-op; 3.1.5-op; 3.1.8-op; 7.1.4-op; 7.2.1-op	
	6.	Check that the Certificate Holder's manual includes a policy	
		that establishes that actual passenger and baggage weights	
		will be used when computing the weight and balance of	
		charter flights and other special service involving the carriage of special groups unless otherwise authorized by the	
		approved weight and balance control manual.	
		Sources: 121.135(b)(1); E.096c	
		Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.5-aw;	
		2.1.5-op; 3.1.3-op; 3.1.5-op; 3.1.8-op; 7.1.4-op; 7.2.1-op	
1.2	Do	es the Certificate Holder's manual cite the regulatory requirements	□ Yes
		ed in the Supplemental Information section of this SAI?	□ No, Explain
		Rs: 121.135(b)(3)	ino, Explain
1.3	Do	es the Certificate Holder's manual contain the duties and	□ Yes
	res	ponsibilities for personnel who will accomplish the Flight / Load	□ No, Explain
	Ма	nifest / Weight and Balance Control process?	rio, Expiani
		Rs: 121.135(b)(2); 121.135(b)(9); 121.135(b)(20)	
1.4		es the Certificate Holder's manual include instructions and information	□ Yes
		personnel to meet the requirements of the Flight / Load Manifest /	□ No, Explain
	We	eight and Balance Control process?	

SRRs: 121.135(a)(1)	
1.5 Does the Certificate Holder's manual contain instructions and information about the preparation and signature of documents before each aircraft takeoff, by employees who are authorized to supervise the loading process? SRRs: 121.135(b)(9); 121.135(b)(20); 121.665	☐ Yes ☐ No, Explain
 Related Design JTIs: Check that the Certificate Holder's manual system has methods and procedures to assign responsibility for the preparation and accuracy of the load manifest form before each takeoff. Sources: 121.135(b)(20); 121.665 Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.8-op; 3.2.1-op; 7.1.4-op Check that the Certificate Holder's manual system includes methods and procedures to ensure that the load manifest form is prepared and signed for each flight by an employee who has the duty of supervising the loading of aircraft and preparing the load manifest forms or by another qualified person authorized by the Certificate Holder. 	
Sources: 121.665; 121.135(b)(20) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.3-op; 3.1.8-op; 3.2.1-op	
3. Check that the Certificate Holder's manual system has instructions and information to its personnel to ensure that the load manifest form is prepared and signed for each flight by an employee of the Certificate Holder who has the duty of supervising the loading of aircraft and preparing the load manifest forms or by another qualified person authorized by the Certificate Holder. Sources: 121.665; 121.135(a)(1) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.3-op; 3.1.8-op; 3.2.1-op	
1.6 Does the Certificate Holder's manual ensure the Load Manifest contains the information at takeoff:	ne following
1.6.1The weight of the aircraft, fuel and oil, cargo and baggage, passengers and crewmembers? SRRs: 121.693(a)	☐ Yes ☐ No, Explain
 Related Design JTIs: Check that the Certificate Holder's manual system has methods and procedures to ensure the load manifest contains the weight of the aircraft at takeoff time. Sources: 121.693(a); 121.135(b)(20) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.8-op; 3.2.1-op Check that the Certificate Holder's manual system has methods and procedures to ensure the load manifest contains the weight of the fuel and oil at takeoff time. 	
Sources: 121.693(a); 121.135(a)(1)	

Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.8-op; 3.2.1-op

3. Check that the Certificate Holder's manual system has methods and procedures to ensure the load manifest contains the weight of the cargo and baggage at takeoff time.

Sources: 121.693(a); 121.135(b)(20)

Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.8-op; 3.2.1-op

4. Check that the Certificate Holder's manual system has methods and procedures to ensure the load manifest contains the weight of the passengers and crewmembers at takeoff time.

Sources: 121.693(a); 121.135(b)(20)

Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.8-op; 3.2.1-op

5. Check that the Certificate Holder's manual system has instructions and information to its personnel to ensure the load manifest contains the weight of the fuel and oil at takeoff time.

Sources: 121.693(a); 121.135(a)(1)

Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op;

3.1.8-op; 3.2.1-op

1.6.2The maximum allowable takeoff weight for the runway intended to be used and include corrections for altitude, gradient, wind and temperature \Bullet No, Explain conditions existing at the time of takeoff? SRRs: 121.693(b)(1)

☐ Yes

Related Design JTIs:

1. Check that the Certificate Holder's manual system contains methods and procedures to ensure that the maximum allowable weight on the load manifest for any flight does not exceed the least of the following weights at takeoff time: (1) Maximum allowable takeoff weight for the runway intended to be used (including corrections for altitude, runway gradient, wind, and temperature existing at takeoff time). (2) Maximum takeoff weight considering anticipated fuel and oil consumption that allows compliance with applicable en route performance limitations. (3) Maximum takeoff weight considering anticipated fuel and oil consumption that allows compliance with the maximum authorized design landing weight limitations on arrival at the destination airport. (4) Maximum takeoff weight considering anticipated fuel and oil consumption that allows compliance with landing distance limitations on arrival at the destination and alternate airports.

Sources: 121.693(b)(1); 121.693(b)(2); 121.693(b)(3); 121.693(b)(4); 121.135(b)(20)

Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.8-op; 3.2.1-op

2. Check that the Certificate Holder's manual system has instructions and information to its personnel, to ensure that the maximum allowable weight on the load manifest for any flight does not exceed the least of the following weights at takeoff time: (1) Maximum allowable takeoff weight for the runway intended to be used (including corrections for altitude, runway gradient, wind, and temperature existing at takeoff time). (2) Maximum takeoff weight considering anticipated fuel and oil consumption that allows compliance with applicable en route performance limitations. (3) Maximum takeoff weight considering anticipated fuel and oil consumption that allows compliance with the maximum authorized design landing weight limitations on arrival at the destination airport. (4) Maximum takeoff weight considering anticipated fuel and oil consumption that allows compliance with landing distance limitations on arrival at the destination and alternate airports.

Sources: 121.693(b)(1); 121.693(b)(2); 121.693(b)(3); 121.693(b)(4); 121.135(a)(1)

Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.8–op; 3.2.1–op

1.6.3The maximum takeoff weight, considering anticipated fuel and oil consumption, to comply with any applicable enroute performance limitations?

□ Yes

□ No, Explain

SRRs: 121.693(b)(2)

Related Design JTIs:

1. Check that the Certificate Holder's manual system contains methods and procedures to ensure that the maximum allowable weight on the load manifest for any flight does not exceed the least of the following weights at takeoff time: (1) Maximum allowable takeoff weight for the runway intended to be used (including corrections for altitude, runway gradient, wind, and temperature existing at takeoff time). (2) Maximum takeoff weight considering anticipated fuel and oil consumption that allows compliance with applicable en route performance limitations. (3) Maximum takeoff weight considering anticipated fuel and oil consumption that allows compliance with the maximum authorized design landing weight limitations on arrival at the destination airport. (4) Maximum takeoff weight considering anticipated fuel and oil consumption that allows compliance with landing distance limitations on arrival at the destination and alternate airports.

Sources: 121.693(b)(1); 121.693(b)(2); 121.693(b)(3); 121.693(b)(4); 121.135(b)(20)

Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.8–op; 3.2.1–op

2. Check that the Certificate Holder's manual system has instructions and information to its personnel, to ensure that the maximum allowable weight on the load manifest for any flight does not exceed the least of the following weights at takeoff time: (1) Maximum allowable takeoff weight for the runway intended to be used (including corrections for altitude, runway gradient, wind, and temperature existing at takeoff time). (2) Maximum takeoff weight considering anticipated fuel and oil consumption that allows compliance with applicable en route performance limitations. (3) Maximum takeoff weight considering anticipated fuel and oil consumption that allows compliance with the maximum authorized design landing weight limitations on arrival at the destination airport. (4) Maximum takeoff

weight considering anticipated fuel and oil consumption that allows compliance with landing distance limitations on arrival at the destination and alternate airports. Sources: 121.693(b)(1); 121.693(b)(2); 121.693(b)(3); 121.693(b)(4); 121.135(a)(1) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.8-op; 3.2.1-op 1.6.4The maximum takeoff weight, considering anticipated fuel and oil ☐ Yes consumption, to comply with the maximum authorized landing weight □ No, Explain limitations on arrival at the destination airport? SRRs: 121.693(b)(3) Related Design JTIs: 1. Check that the Certificate Holder's manual system contains methods and procedures to ensure that the maximum allowable weight on the load manifest for any flight does not exceed the least of the following weights at takeoff time: (1) Maximum allowable takeoff weight for the runway intended to be used (including corrections for altitude, runway gradient, wind, and temperature existing at takeoff time). (2) Maximum takeoff weight considering anticipated fuel and oil consumption that allows compliance with applicable en route performance limitations. (3) Maximum takeoff weight considering anticipated fuel and oil consumption that allows compliance with the maximum authorized design landing weight limitations on arrival at the destination airport. (4) Maximum takeoff weight considering anticipated fuel and oil consumption that allows compliance with landing distance limitations on arrival at the destination and alternate airports. Sources: 121.693(b)(1); 121.693(b)(2); 121.693(b)(3); 121.693(b)(4); 121.135(b)(20) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.8-op; 3.2.1-op 2. Check that the Certificate Holder's manual system has instructions and information to its personnel, to ensure that the maximum allowable weight on the load manifest for any flight does not exceed the least of the following weights at takeoff time: (1) Maximum allowable takeoff weight for the runway intended to be used (including corrections for altitude, runway gradient, wind, and temperature existing at takeoff time). (2) Maximum takeoff weight considering anticipated fuel and oil consumption that allows compliance with applicable en route performance limitations. (3) Maximum takeoff weight considering anticipated fuel and oil consumption that allows compliance with the maximum authorized design landing weight limitations on arrival at the destination airport. (4) Maximum takeoff weight considering anticipated fuel and oil consumption that allows compliance with landing distance limitations on arrival at the destination and alternate airports. Sources: 121.693(b)(1); 121.693(b)(2); 121.693(b)(3); 121.693(b)(4); 121.135(a)(1) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.8-op; 3.2.1-op

1.6.5 The maximum takeoff weight, considering anticipated fuel and oil consumption, to comply with landing distance limitations on arrival at the destination and alternate airports?

☐ Yes ☐ No, Explain

SRRs: 121.693(b)(4)

Related Design JTIs:

1. Check that the Certificate Holder's manual system contains methods and procedures to ensure that the maximum allowable weight on the load manifest for any flight does not exceed the least of the following weights at takeoff time: (1) Maximum allowable takeoff weight for the runway intended to be used (including corrections for altitude, runway gradient, wind, and temperature existing at takeoff time). (2) Maximum takeoff weight considering anticipated fuel and oil consumption that allows compliance with applicable en route performance limitations. (3) Maximum takeoff weight considering anticipated fuel and oil consumption that allows compliance with the maximum authorized design landing weight limitations on arrival at the destination airport. (4) Maximum takeoff weight considering anticipated fuel and oil consumption that allows compliance with landing distance limitations on arrival at the destination and alternate airports.

Sources: 121.693(b)(1); 121.693(b)(2); 121.693(b)(3); 121.693(b)(4); 121.135(b)(20)

Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.8–op; 3.2.1–op

2. Check that the Certificate Holder's manual system has instructions and information to its personnel, to ensure that the maximum allowable weight on the load manifest for any flight does not exceed the least of the following weights at takeoff time: (1) Maximum allowable takeoff weight for the runway intended to be used (including corrections for altitude, runway gradient, wind, and temperature existing at takeoff time). (2) Maximum takeoff weight considering anticipated fuel and oil consumption that allows compliance with applicable en route performance limitations. (3) Maximum takeoff weight considering anticipated fuel and oil consumption that allows compliance with the maximum authorized design landing weight limitations on arrival at the destination airport. (4) Maximum takeoff weight considering anticipated fuel and oil consumption that allows compliance with landing distance limitations on arrival at the destination and alternate airports.

Sources: 121.693(b)(1); 121.693(b)(2); 121.693(b)(3); 121.693(b)(4); 121.135(a)(1)

Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.8–op; 3.2.1–op

1.6.6The total weight as computed by authorized personnel using an approved procedure?	☐ Yes ☐ No, Explain
SRRs: 121.693(c)	, ,
Related Design JTIs: 1. Check that the Certificate Holder's manual system has instructions	
and information to its personnel to ensure the load manifest contains the total weight computed under approved procedures. Sources: 121.135(a)(1); 121.693(c)	
Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.8-op; 3.2.1-op	
 Check that the Certificate Holder's manual system includes methods and procedures to ensure the load manifest contains the total weight computed under approved procedures. Sources: 121.693(c); 121.135(b)(20) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 	
3.1.8-op; 3.2.1-op	
 Check that the Certificate Holder's manual includes the methods and procedures for actual passenger and crew weights used in their weight and balance program. Sources: 121.135(b)(20); E.096a 	
Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.5-aw; 2.1.5-op; 3.1.3-op; 3.1.5-op; 3.1.8-op; 7.1.4-op; 7.2.1-op	
 Check that the Certificate Holder's manual includes the methods and procedures for average passenger and crew weights used in their weight and balance program. Sources: 121.135(b)(20); E.096a Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.5-aw; 2.1.5-op; 	
 3.1.3-op; 3.1.5-op; 3.1.8-op; 7.1.4-op; 7.2.1-op 5. Check that the Certificate Holder's manual system has instructions and information to its personnel to ensure the load manifest contains the weight of the aircraft at takeoff time. Sources: 121.693(a); 121.135(a)(1) 	
Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.8-op; 3.2.1-op	
1.6.7Evidence that the aircraft is loaded according to the approved schedule to ensure that the center of gravity is within approved limits? SRRs: 121.693(d)	☐ Yes ☐ No, Explain
Related Design JTIs:	
Check that the Certificate Holder's manual system has instructions and information to its personnel to ensure that the load manifest contains evidence that the aircraft is loaded according to an approved schedule that ensures the center of gravity is within approved limits at takeoff time.	
Sources: 121.693(d); 121.135(a)(1) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.8-op; 3.2.1-op	

1.6.8	Names of passengers, unless the Certificate Holder maintains this information by another means? SRRs: 121.135(b)(9); 121.135(b)(20); 121.693(e)	☐ Yes ☐ No, Explain ☐ Not Applicable
	 Related Design JTIs: Check that the Certificate Holder's manual system has instructions and information to its personnel ensuring the load manifest contains the names of passengers at takeoff time unless such information is maintained by other means by the Certificate Holder. Sources: 121.693(e); 121.135(a)(1) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.8-op; 3.2.1-op 	
1.7	Does the Certificate Holder's manual, for domestic and flag operations, contain instructions and information for the pilot in command to carry to the destination a copy of the load manifest, a copy of the dispatch release, and a copy of the flight plan? SRRs: 121.695(a)(1); 121.695(a)(2); 121.695(a)(3)	☐ Yes ☐ No, Explain ☐ Not Applicable
	Related Design JTIs: 1. Check that the Certificate Holder's manual system has instructions and information to its personnel for the pilot in command of an airplane to carry a copy of the completed load manifest (or information from it, except information concerning cargo and passenger distribution) to its destination. Sources: 121.695(a)(1); 121.135(a)(1) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.3-op; 3.2.1-op	
1.8	Does the Certificate Holder's manual, for domestic and flag operations,	☐ Yes ☐ No, Explain ☐ Not Applicable
	 Related Design JTIs: Check that the Certificate Holder's manual system has instructions and information to its personnel to retain copies of the records required in FAR 121.695 for at least three months. Sources: 121.695(b); 121.135(a)(1) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.3-op; 3.2.1-op Check that the Certificate Holder conducting supplemental operations, 	
	has a manual system that contains instructions and information to retain at its principal base of operations, either an original or a copy of the records required by this section for at least three months. Sources: 121.697(e)(2); 121.135(a)(1) Interfaces: 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 2.1.5-aw; 2.1.5-op; 3.1.4-op; 3.2.1-op; 7.1.4-op	
1.9	When conducting supplemental operations, does the Certificate Holder's manual contain instructions and information for the pilot in command to carry to the destination the original or a signed copy of the load manifest, the flight release, the airworthiness	☐ Yes ☐ No, Explain ☐ Not Applicable

	release, the pilot route certification, and a completed flight plan? SRRs: 121.697(a)(1); 121.697(a)(2); 121.697(a)(3); 121.697(a)(4); 121.697(a)(5)	
	Related Design JTIs: 1. Check that the Certificate Holder's manual system has instructions and information to its personnel requiring the pilot in command of an airplane to carry to its destination the original or a signed copy of the load manifest. Sources: 121.697(a)(1); 121.135(a)(1) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 2.1.5-aw; 2.1.5-op; 3.1.3-op; 3.2.1-op	
1.10	If a supplemental flight originates at the principal base of operations, does the Certificate Holder's manual contain instructions and information to retain a signed copy of the load manifest, the flight release, the airworthiness release, the pilot route certification, and an original or a copy of the flight plan at the main base? SRRs: 121.697(b)	☐ Yes ☐ No, Explain ☐ Not Applicable
	 Related Design JTIs: Check that the Certificate Holder's manual system has instructions and information to its personnel that if a flight originates at the Certificate Holder's principal base of operations, it shall retain at that base a signed copy of each document listed in FAR 121.697(a). Sources: 121.697(b); 121.135(a)(1) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 2.1.5-aw; 2.1.5-op; 3.1.3-op; 3.2.1-op 	
1.11	If the supplemental flight originates at a place other than the principal base of operation, does the Certificate Holder's manual contain instructions and information to send a signed copy of the load manifest to the main base, original or a signed copy of the flight release, the airworthiness release, a copy of the pilot route certification and an original or a copy of the completed flight plan? SRRs: 121.697(c)	☐ Yes ☐ No, Explain ☐ Not Applicable
	 Related Design JTIs: Check that the certificate holder's manual system includes methods and procedures, except as provided in FAR 121.697(d), that if a flight originates at a place other than the certificate holder's principal base of operations, the pilot in command (or another person not aboard the airplane who is authorized by the certificate holder) shall, before or immediately after departure of the flight, mail signed copies of the documents listed in FAR 121.697(a), to the principal base of operations. Sources: 121.697(c); 121.135(a)(1) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 2.1.5-aw; 2.1.5-op; 3.1.3-op; 3.2.1-op 	

1.12When conducting supplemental operations at a place other principal base, does the Certificate Holder's manual contains and information to ensure that signed copies of the documentary by 14 CFR 121.697 are retained at that location for not make the days before they are sent to the principal base? SRRs: 121.697(d)	in instructions nents required	☐ Yes ☐ No, Explain ☐ Not Applicable
 Related Design JTIs: Check that the Certificate Holder's manual system has and information to its personnel that, if a flight originate other than the Certificate Holder's principal base of opthere is at that place a person to manage the flight depairplane, signed copies of the documents listed in FAR may be retained at that place for not more than 30 day sent to the Certificate Holder's principal base of operation the documents for a particular flight need not be further that place or be sent to the principal base of operation or other copies of them have been previously returned base of operations. Sources: 121.697(d); 121.135(a)(1) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.5-aw; 2.1.5-op; 3.1.3-op; 3.2.1-op 	es at a place erations, and parture for the art on the 2 121.697(a) ys before being tions. However, er retained at s, if the originals to the principal	
1.13 Does the Certificate Holder conducting supplemental open in its operations manual the persons having custody of the documents retained in accordance with 14 CFR 121.697(c) SRRs: 121.697(e)(1); 121.697(e)(2)	e copies of	☐ Yes ☐ No, Explain ☐ Not Applicable
Related Design JTIs: 1. Check that the Certificate Holder's manual system, wh supplemental operations, has instructions and informal personnel that identifies the person having custody of documents retained in accordance with FAR 121.697(Sources: 121.697(e)(1); 121.135(a)(1) Interfaces: 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 2.1.5-op; 3.1.4-op; 3.2.1-op; 7.1.4-op	tion to its the copies of d).	
1.14If the Certificate Holder operates an aircraft in cargo servi has been approved for an increased zero fuel weight in accordance with 14 CFR 121.198, does the Certificate Homanual contain instructions and information to ensure tha zero fuel weight increase does not exceed five percent, as increase in the structural landing weight does not exceed increase in zero fuel weight? Note: This applies to the DC DC-6B, DC-7B, and DC-7C; and L1049B, C, D, E, F, G, and the L1649A when modified in accordance with supple type certificate SA 4–1402. SRRs: 121.135(b)(20); 121.198(c)	older's t the nd the the –6A, and H,	☐ Yes ☐ No, Explain ☐ Not Applicable

•		☐ Yes ☐ No, Explain
	 Related Design JTIs: Check that the Certificate Holder's manual system has instructions and information to its personnel to ensure the load manifest contains the weight of the cargo and baggage at takeoff time. Sources: 121.693(a); 121.135(a)(1) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.8-op; 3.2.1-op 	
	 Check that the Certificate Holder's manual system has instructions and information to its personnel regarding to ensure the load manifest contains the weight of the passengers and crewmembers at takeoff time. Sources: 121.135(a)(1); 121.693(a) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.8-op; 3.2.1-op 	
	3. Check that the Certificate Holder's manual system includes methods and procedures that ensure the load manifest contains evidence that the aircraft is loaded according to an approved schedule that ensures the center of gravity is within approved limits at takeoff time. Sources: 121.693(d); 121.135(b)(20) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.8-op; 3.2.1-op	
	 Check that the Certificate Holder's manual system has methods and procedures to ensure the load manifest contains the weight of the aircraft at takeoff time. Sources: 121.693(a); 121.135(b)(20) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.8-op; 3.2.1-op 	
		□ Yes □ No, Explain
	Related Design JTIs: 1. Check that the Certificate Holder's manual includes the methods and procedures for actual baggage weights used in their weight and balance program. Sources: 121.135(b)(20); E.096b Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.5-aw; 2.1.5-op; 3.1.3-op; 3.1.5-op; 3.1.8-op; 7.1.4-op; 7.2.1-op	
	 Check that the Certificate Holder's manual includes the methods and procedures for average baggage weights used in their weight and balance program. Sources: 121.135(b)(20); E.096b Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.5-aw; 	

2.1.5-op; 3.1.3-op; 3.1.5-op; 3.1.8-op; 7.1.4-op; 7.2.1-op 3. Check that the Certificate Holder's manual system includes procedures for crewmembers, load agents, cargo handlers, and other personnel concerned, giving complete information regarding distribution of passengers, cargo, fuel, and other items, that when the loading schedule provides for blocking off seats or compartments in order to remain within the CG limits, effective means should be provided to ensure that such seats or compartments are not occupied during operations specified. Information relative to maximum capacities and other pertinent limitations affecting the weight or balance of the aircraft should be included in these instructions. Sources: AC 120-27C-9 FAA Order 8400.10 Volume 3 Chapter 15 Section 3 Paragraph 2133 B (6) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.1-op; 3.1.2-op; 3.1.3-op; 3.1.9-op; 3.2.1-op; 7.2.1-op 1.17 Unless otherwise authorized by the FAA Approved Weight and □ Yes Balance Control Manual, does the Certificate Holder's manual □ No, Explain have instructions and information for the use of actual passenger and baggage weights when computing the weight and balance of charter flights and other special service involving the carriage of special groups? SRRs: 121.135(b)(20); E.096Weight and Balance Control **Procedures** Related Design JTIs: 1. Check that the Certificate Holder's manual includes the methods and procedures for actual passenger and baggage weights used when computing the weight and balance of charter flights and other special service involving the carriage of special groups unless otherwise authorized by the approved weight and balance control manual. Sources: 121.135(b)(20); E.096c Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.5-aw; 2.1.5-op; 3.1.3-op; 3.1.5-op; 3.1.8-op; 7.1.4-op; 7.2.1-op 2. Check that the Certificate Holder's manual system has procedures relating to operational performance factors such as extension and retraction of thrust reversers in their weight and balance program. Sources: AC 120-27C-5f FAA Order 8400.10 Volume 3 Chapter 15 Section 3 Paragraph 2133 B (1) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.9-op; 3.2.1-op 3. Check that the Certificate Holder's manual system has procedures relating to operational performance factors such as enroute and taxi fuel burnoff in their weight and balance program. Sources: AC 120-27C-5f FAA Order 8400.10 Volume 3

Chapter 15 Section 3 Paragraph 2133 B (1)

 Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.9-op; 3.2.1-op 4. Check that the Certificate Holder's manual system has procedures that all seats, compartments, and other loading stations should be properly marked and the identification used should correspond with the instructions established for computing weight and balance of the aircraft. Sources: AC 120-27C-9 FAA Order 8400.10 Volume 3 Chapter 15 Section 3 Paragraph 2133 B (4) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.1-op; 3.1.2-op; 3.1.3-op; 3.1.9-op; 3.2.1-op; 7.2.1-op 	
1.18For routine operations, does the Certificate Holder's manual contain instructions and information to use the loading schedule table refere in its operations specifications paragraph E096? SRRs: E.096Weight and Balance Control Procedures	
 Related Design JTIs: Check that the Certificate Holder's manual includes the methods procedures for actual passenger and crew weights used in their weight and balance program. Sources: 121.135(b)(20); E.096a Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.5-aw; 2.1.5-op; 3.1.3-op; 3.1.5-op; 3.1.8-op; 7.1.4-op; 7.2.1-op Check that the Certificate Holder's manual system has procedure that may be applied to individual aircraft or to a complete fleet. We an operator utilizes several types of models of aircraft, a loading schedule, which may be index-type, tabular-type, or a computer should be identified with the type of model or aircraft for which it designed. Sources: AC 120-27C 8. FAA Order 8400.10 Volume 3 Chapter Section 3 Paragraph 2133 B (4) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.9-op; 3.2.1-op 	es /hen r, is
 1.19 Does the Certificate Holder's manual contain the required references to, or excerpts, from operations specification paragraph E096? SRRs: 119.43(b) Related Design JTIs: Check that the Certificate Holder's manual system has procedures that the carry–on bags permitted by an 	☐ Yes ☐ No, Explain
operator's program are included in the standard average passenger weights. Although movement of these carry–on bags from the cabin to the baggage compartment may not require any weight recalculations, the operator must ensure that CG calculations are not adversely effected. Sources: AC 120–27C–10a(4) FAA Order 8400.10 Volume 3 Chapter 15 Section 3 Paragraph 2133 B (3) Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.1–op; 3.1.2–op; 3.1.9–op;	

3.2.1–op; 7.2.1–op	
1.20If the Certificate Holder's manual includes excerpts from its operations specifications, are the excerpts clearly identified as part of the operation specifications? SRRs: 119.43(b)(1)	☐ Yes ☐ No, Explain ☐ Not Applicable
Related Design JTIs: 1. Check that the Certificate Holder's manual system has procedures that the carry–on bags permitted by an operator's program are included in the standard average passenger weights. Although movement of these carry–on bags from the cabin to the baggage compartment may not require any weight recalculations, the operator must ensure that CG calculations are not adversely effected. Sources: AC 120–27C–10a(4) FAA Order 8400.10 Volume 3 Chapter 15 Section 3 Paragraph 2133 B (3) Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.1–op; 3.1.3–op; 3.1.9–op;	
3.2.1-op; 7.2.1-op	
1.21 Does the Certificate Holder's manual require compliance with operations specifications paragraph E096? SRRs: 119.43(b)(2)	☐ Yes ☐ No, Explain
 Related Design JTIs: Check that the Certificate Holder's manual includes a policy that states that it will use an approved weight and balance control system based on estimated weight to comply with applicable airworthiness requirements and operating limitations. Sources: 121.153(b); 121.135(b)(1) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.5-aw; 2.1.5-op; 3.1.3-op; 3.1.5-op; 3.1.8-op; 7.1.4-op; 7.2.1-op 	
1.22Does the Certificate Holder's manual contain a method for keeping all persons engaged in its operations informed of the provisions of operations specification paragraph E096? SRRs: 119.43(c)	☐ Yes ☐ No, Explain
1.23Does the Certificate Holder's Flight / Load Manifest / Weight and Balance Control process comply with the guidance contained in FAA Order 8400.10?	☐ Yes ☐ No, Explain
 Related Design JTIs: Check that the Certificate Holder's manual system has procedures that a load manifests is used to document loading information by personnel responsible for weight and balance control. Sources: AC 120–27C–5d; FAA Order 8400.10 Volume 3 Chapter15 Section 3 Paragraph 2133 B (5) Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.9–op; 3.2.1–op 	
 Check that the Certificate Holder's weight and balance control system contains procedures to encompass loading schedules that are simple and orderly, based on sound principles, thus reducing the elements of human error. 	

Sources: AC 120–27C 8. FAA Order 8400.10 Volume 3 Chapter 15 Section 3 Paragraph 2133 B (4)

Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.9–op; 3.2.1–op

3. Check that the Certificate Holder's manual system has procedures that when the loading schedule provides for blocking off seats or compartments in order to remain within the CG limits, effective means should be provided to ensure that such seats or compartments are not occupied during the operations specified. Sources: AC 120–27C–9 FAA Order 8400.10 Volume 3 Chapter 15 Section 3 Paragraph 2133 B (4)

Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.1–op; 3.1.2–op; 3.1.3–op; 3.1.9–op; 3.2.1–op; 7.2.1–op

4. Check that the Certificate Holder's manual system has procedures for using actual passenger weights for nonstandard weight groups unless average weights have been established for those groups. This includes athletic squads and other groups that are larger or smaller than the U.S. average. Sources: AC 120–27C–11a FAA Order 8400.10 Volume 3 Chapter

Sources: AC 120–27C–11a FAA Order 8400.10 Volume 3 Chapter 15 Section 3 Paragraph 2133 B (3)

Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.1–op; 3.1.2–op; 3.1.3–op; 3.1.9–op; 3.2.1–op; 7.2.1–op

5. Check that the Certificate Holder's manual system has procedures describing the use of actual passenger weights for nonstandard weight groups, when such groups form only a part of the total passenger load. Actual weights, or established average weights for the nonstandard group, may be used for such exception groups and average weights used for the balance of the passenger load. In such instances, a notation should be made in the load manifest indicating the number of persons in the special group and identifying the group; i.e., football squad, etc.

Sources: AC 120–27C–11a FAA Order 8400.10 Volume 3 Chapter 15 Section 3 Paragraph 2133 B (3)

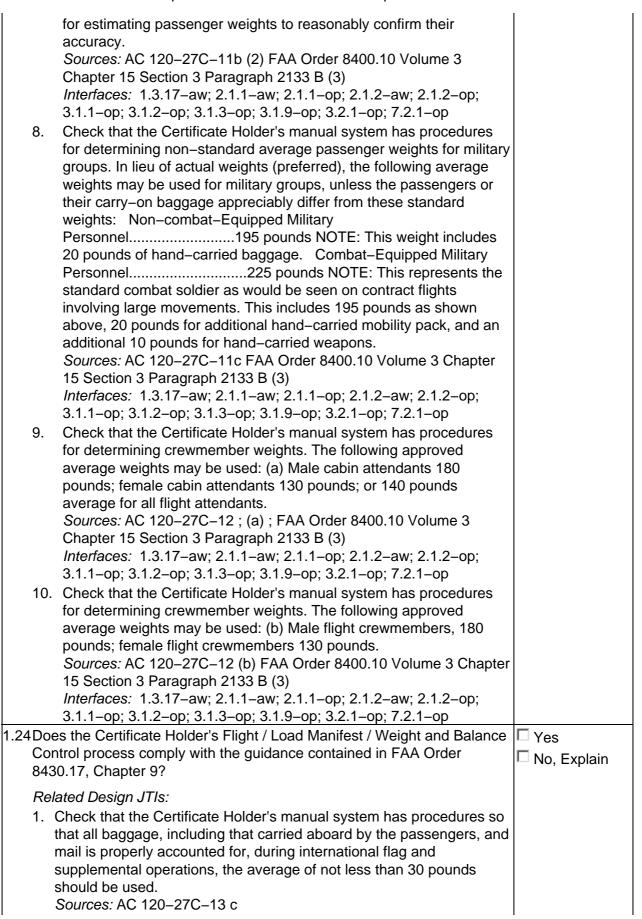
Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.1–op; 3.1.2–op; 3.1.3–op; 3.1.9–op; 3.2.1–op; 7.2.1–op

 Check that the Certificate Holder's manual system has procedures for determining actual passenger weight by scale weighing of each passenger prior to boarding the aircraft, including handbags carried on board by the passenger.

Sources: AC 120–27C–11b (1) FAA Order 8400.10 Volume 3 Chapter 15 Section 3 Paragraph 2133 B (3)

Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.1-op; 3.1.2-op; 3.1.3-op; 3.1.9-op; 3.2.1-op; 7.2.1-op

7. Check that the Certificate Holder's manual system has procedures for determining actual passenger weight by asking each passenger his/her weight and adding to it a predetermined constant to provide for handbags and clothing. This constant may be approved for an operator on the basis of studies by the operator that considers particular routes and seasonal variations, when applicable. Personnel listing passengers on this basis should receive instruction



Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.1-op; 3.1.2-op; 3.1.3-op; 3.1.9-op; 3.2.1-op; 7.2.1-op

1.25Does the Certificate Holder's Flight / Load Manifest / Weight and Balance Control process comply with the guidance contained in FAA Advisory Circular 120–27C?

☐ Yes ☐ No, Explain

Related Design JTIs:

 Check that the Certificate Holder's manual system contains methods and procedures detailing a loading schedule composed of graphs, tables, and computations and/or computer programs, etc., whereby the various weight and balance conditions of an aircraft may be established based on pertinent data for use in loading that particular aircraft in a satisfactory manner.

Sources: AC 120–27C–5b,; FAA Order 8400.10 Volume 3 Chapter 15 Sec 3 Paragraph 2133 B (4)

Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.9–op; 3.2.1–op

 Check that the Certificate Holder's manual system includes procedures for using a loading schedule in order to establish that the loaded condition of the aircraft is within weight and CG limits. Sources: AC 120–27C–5c

Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.9-op; 3.2.1-op

3. Check that the Certificate Holder's manual system includes procedures for the preparation of the load manifest that is used to document loading information by personnel responsible for weight and balance control.

Sources: AC 120–27C–5d Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.9–op; 3.2.1–op

4. Check that the Certificate Holder's manual system has procedures for all applicable personnel concerned with aircraft loading and operations that provides complete details regarding distribution of passengers and necessary restrictions to passenger movement both on the ground and during flight.

Sources: AC 120–27C–5e
Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.9–op; 3.2.1–op

 Check that the Certificate Holder's manual system has procedures for all applicable personnel concerned with aircraft loading and operations that provides complete details regarding the distribution of fuel.

Sources: AC 120–27C–5e
Interfaces: 1.3.17–aw: 2.1.1–aw: 2.1.1–op: 2

Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.9–op; 3.2.1–op

 Check that the Certificate Holder's manual system has procedures for all applicable personnel concerned with aircraft loading and operations that provides complete details regarding the distribution of cargo.

Sources: AC 120-27C-5e

Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.9–op; 3.2.1–op

- 7. Check that the Certificate Holder's manual system has procedures relating to operational performance factors such as takeoff and landing weight in their weight and balance program.

 Sources: AC 120–27C–5f FAA Order 8400.10 Volume 3 Chapter 15 Section 3 Paragraph 2133 B (1)

 Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.9–op; 3.2.1–op
- 8. Check that the Certificate Holder's manual system has procedures relating to operational performance factors such as extension and retraction of landing gear in their weight and balance program. Sources: AC 120–27C–5f FAA Order 8400.10 Volume 3 Chapter 15 Section 3 Paragraph 2133 B (1)

 Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.9–op; 3.2.1–op
- Check that the Certificate Holder's manual system has procedures relating to operational performance factors such as extension and retraction flaps and slats in their weight and balance program.
 Sources: AC 120–27C–5f FAA Order 8400.10 Volume 3 Chapter 15 Section 3 Paragraph 2133 B (1)
 Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.9–op; 3.2.1–op
- 10. Check that the Certificate Holder's manual system has procedures that may be applied to individual aircraft or to a complete fleet. When an operator utilizes several types of models of aircraft, a loading schedule, which may be index-type, tabular-type, or a computer, should be identified with the type of model or aircraft for which it is designed.

Sources: AC 120–27C 8. FAA Order 8400.10 Volume 3 Chapter 15 Section 3 Paragraph 2133 B (4)

Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.9–op; 3.2.1–op

11. Check that the Certificate Holder's manual system includes procedures for crewmembers, load agents, cargo handlers, and other personnel concerned, giving complete information regarding distribution of passengers, cargo, fuel, and other items, that when the loading schedule provides for blocking off seats or compartments in order to remain within the CG limits, effective means should be provided to ensure that such seats or compartments are not occupied during operations specified. Information relative to maximum capacities and other pertinent limitations affecting the weight or balance of the aircraft should be included in these instructions.

Sources: AC 120–27C–9 FAA Order 8400.10 Volume 3 Chapter 15 Section 3 Paragraph 2133 B (6)

Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.1–op; 3.1.2–op; 3.1.3–op; 3.1.2–op; 7.2.1–op

12. Check that the Certificate Holder's manual system has procedures that, when it is possible by adverse distribution of passengers and/or

cargo to exceed the approved CG limits of the aircraft, special instructions should be issued to the pilot in command and appropriate personnel so that the load distribution can be maintained within the approved limitation.

Sources: AC 120–27C–9 FAA Order 8400.10 Volume 3 Chapter 15 Section 3 Paragraph 2133 B (6)

Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.1–op; 3.1.2–op; 3.1.3–op; 3.1.9–op; 3.2.1–op; 7.2.1–op

13. Check that the Certificate Holder's manual system includes procedures whereby a suitable commercially available scale is accessible for use when passenger, baggage, and cargo weights are otherwise undeterminable.

Sources: AC 120–27C–9 FAA Order 8400.10 Volume 3 Chapter 15 Section 3 Paragraph 2133 B (3)

Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.1–op; 3.1.2–op; 3.1.2–op; 3.1.2–op; 3.2.1–op; 7.2.1–op

14. Check that the Certificate Holder's manual system has procedures for the manifest to indicate whether average or actual weights, or a combination thereof, were used in the computation.

Sources: AC 120–27C 10 FAA Order 8400.10 Volume 3 Chapter 15 Section 3 Paragraph 2133 B (3)

Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op;

3.1.1-op; 3.1.2-op; 3.1.3-op; 3.1.9-op; 3.2.1-op; 7.2.1-op

15. Check that the Certificate Holder's manual system has methods and procedures that provide for the use of standard average passenger weights listed in the table (developed from conventional airline passenger groups) in AC 120–27C–10a. These tables cannot be arbitrarily adopted for operations with passenger groups that appreciably differ from the basis or where the mix of male and female passengers is known to be different than a 60 percent male/40 percent female operation. Special average weights or special ratios may be established for particular operations based on surveys that: (1) indicate that those weights consistently provide for loading within prescribed weight and balance limits; and (2) meet the criteria for surveys and statistical analysis outlines in Appendix 1 of AC 120–27C–10a.

Sources: AC 120–27C–10a FAA Order 8400.10 Volume 3 Chapter 15 Section 3 Paragraph 2133 B (3) Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.2–aw; 2.1.2–aw; 2.1.2–op;

3.1.1–op; 3.1.2–op; 3.1.3–op; 3.1.9–op; 3.2.1–op; 7.2.1–op

16. Check that the Certificate Holder's manual system has procedures that the carry–on bags permitted by an operator's program are included in the standard average passenger weights. Although movement of these carry–on bags from the cabin to the baggage compartment may not require any weight recalculations, the operator must ensure that CG calculations are not adversely effected. Sources: AC 120–27C–10a(4) FAA Order 8400.10 Volume 3 Chapter 15 Section 3 Paragraph 2133 B (3) Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.2–aw; 2.1.2–op;

3.1.1-op; 3.1.2-op; 3.1.3-op; 3.1.9-op; 3.2.1-op; 7.2.1-op

17. Check that the Certificate Holder's manual system includes procedures to ensure that CG calculations are not adversely effected by the movement of carry—on bags from the cabin to the baggage compartment.

Sources: AC 120–27C–10a(4) FAA Order 8400.10 Volume 3 Chapter 15 Section 3 Paragraph 2133 B (1) Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.1–op; 3.1.2–op; 3.1.3–op; 3.1.9–op; 3.2.1–op; 7.2.1–op

 Check that the Certificate Holder's manual system has procedures so that all baggage, including that carried aboard by the passengers, is properly accounted for.

Sources: AC 120–27C–13 a Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.1–op; 3.1.2–op; 3.1.3–op; 3.2.1–op; 7.2.1–op

19. Check that the Certificate Holder's manual system has procedures so that all mail is properly accounted for.

Sources: AC 120–27C–13 a Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.1–op; 3.1.2–op; 3.1.3–op; 3.1.9–op; 3.2.1–op; 7.2.1–op

- 20. Check that the Certificate Holder's manual system has procedures for a standard crew baggage weight to be used if desired. *Sources:* AC 120–27C–13 a *Interfaces:* 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.1–op; 3.1.2–op; 3.1.3–op; 3.1.9–op; 3.2.1–op; 7.2.1–op
- 21. Check that the Certificate Holder's manual system has procedures for mailbags and checked baggage average weights if an establish average passenger baggage weight is predicated on a study of actual baggage weights for the operations or routes involved that consider seasonal and other variables.

Sources: AC 120–27C–13 a Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.1–op; 3.1.2–op; 3.1.3–op; 3.1.9–op; 3.2.1–op; 7.2.1–op

22. Check that the Certificate Holder's manual system has procedures so that all baggage, including that carried aboard by the passengers, and mail is properly accounted for, actual weights are used when it is apparent that the checked baggage or the mailbags exceed the average weights.

Sources: AC 120–27C–13 a Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.1–op; 3.1.2–op; 3.1.3–op; 3.1.9–op; 3.2.1–op; 7.2.1–op

23. Check that the Certificate Holder's manual system has procedures so that all baggage, including that carried aboard by the passengers, and mail is properly accounted for, during domestic operations, the domestic operations average of not less than 25 pounds may be used.

Sources: AC 120–27C–13 b Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op; 3.1.1–op; 3.1.2–op; 3.1.3–op; 3.1.9–op; 3.2.1–op; 7.2.1–op

24. Check that the Certificate Holder's manual system has procedures so that all baggage, including that carried aboard by the passengers,

and mail is properly accounted for, during international flag and supplemental operations, the average of not less than 30 pounds should be used. Sources: AC 120–27C–13 c Interfaces: 1.3.17–aw; 2.1.1–aw; 2.1.1–op; 2.1.2–aw; 2.1.2–op;	
3.1.1-op; 3.1.2-op; 3.1.3-op; 3.1.9-op; 3.2.1-op	_
1.26Does the Certificate Holder's Flight / Load Manifest / Weight and	□ Yes
Balance Control process comply with the guidance contained in FAA Notice N8300.112 and N8400.40?	□ No, Explain
1.27 Does the Certificate Holder's Flight / Load Manifest / Weight and Balance	□ Yes
Control process comply with the guidance contained in Air Carrier Operating Bulletin (ACOB) 8–76–3?	□ No, Explain
Related Design JTIs:	
 Check that the Certificate Holder's manual system has procedures so that all baggage, including that carried aboard by the passengers, and mail is properly accounted for, during international flag and supplemental operations, the average of not less than 30 pounds should be used. Sources: AC 120–27C–13 c Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.1-op; 3.1.2-op; 3.1.3-op; 3.1.9-op; 3.2.1-op; 7.2.1-op Check that the Certificate Holder's manual system includes procedures for spot-checking declared cargo weights furnished by air freight forwarders, in order to assure the use of accurate load manifests and weight and balance computations. Sources: FAA Order 8430.17, change 80, chapter 9, paragraph 904 a ACOB NO. 8–76–3 FAA Order 8400.10 Volume 3 Chapter 15 Section 3 Paragraph 2133 B (4) Interfaces: 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.8-op; 7.2.1-op 	
1.28If alternate procedures exist for use during irregular conditions,	□Yes
do the alternate procedures provide an equivalent level of safety	□ No, Explain
to achieve the same results as the primary procedures?	□ Not Applicable
Related Design JTIs:	INOL Applicable
1. Check that the Certificate Holder's manual system has procedures that when computerized systems are used, there are adequate backup provisions for computer failure. Sources: FAA Order 8400.10, volume 6, Chapter 2, section 19, paragraph 473 G (3) FAA Order 8400.10 Volume 3 Chapter 15 Section 3 Paragraph 2133 B (4) Interfaces: 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op	
 Check that the Certificate Holder's manual system includes procedures that when station personnel are required to perform manual calculations in case of computer failure, the Certificate Holder ensures continued proficiency of personnel in making these calculations. Sources: FAA Order 8400.10, volume 6, Chapter 2, section 19, paragraph 473 G (3) FAA Order 8400.10 Volume 3 	

Chapter 15 Section 3 Paragraph 2133 B (4) *Interfaces:* 1.3.17-aw; 2.1.1-aw; 2.1.1-op; 2.1.2-aw; 2.1.2-op; 3.1.3-op; 3.1.13-op; 3.2.1-op; 4.2.3-op; 4.2.5-op; 4.2.6-op

SAI SECTION 1 – PROCEDURES ATTRIBUTE –Drop Down Menu

- 1. No procedures, policy, instructions or information specified.
- 2. Procedures or instructions and information do not identify (who, what, when, where, how).
- 3. Procedures, policy or instructions and information do not comply with CFR.
- 4. Procedures, policy or instructions and information do not comply with FAA policy and guidance.
- 5. Procedures, policy or instructions and information do not comply with other documentation (e.g., manufacturer's data, Jeppesen's Charts, etc.).
- 6. Procedures, policy or instructions and information unclear or incomplete.
- 7. Documentation quality (e.g., unreadable or illegible).
- 8. Procedures, policy or instructions and information inconsistent across Certificate Holder manuals (FOM Flight Operations Manual to GMM General Maintenance Manual, etc.).
- 9. Procedures, policy or instructions and information inconsistent across media (e.g., paper, microfiche, electronic).
- 10. Resource requirements incomplete (personnel, facilities, equipment, technical data).
- 11. Other.

SAI SECTION 2 - CONTROLS ATTRIBUTE

Objective: Controls are checks and restraints designed into a process to ensure a desired result. The questions in this section of the DCT are designed to assist the inspector in determining if checks and restraints are designed into the process to ensure the desired result is achieved. Controls should be written into the manual system to ensure that the most important manual policies, procedures, or instructions and information will be followed.

Controls may be in the form of administrative controls, which are secondary or supplemental written procedures. Like written procedures, administrative controls also need to provide answers to questions regarding who, what, when, where and how. Controls may also be in the form of engineered controls, such as automated features or mechanical actions or devices (i.e., safety devices, warning devices, etc.).

safety devices, warning devices, etc.).		
Tasks		
	To meet this objective, the inspector must accomplish the following tasks:	
1	Review the control questions below.	
2	Review the Certificate Holder's policies, procedures, instructions and information to gain an understanding of the controls that it has documented.	
Que	estions	
	To meet this objective, the inspector must answer the following questions:	
2	Are the following controls built into the Flight / Load Manifest / Weight and Ba Control process:	lance
2.1	•	□ Yes
	seats or compartments using procedures in its manual in order to remain within CG limits?	□ No, Explain
2.2	Is there a control in place to ensure that weight and balance was computed	□ Yes
	accurately and and within limits?	□ No, Explain
2.3	Is there a control in place to ensure that the Certificate Holder randomly	□ Yes
	checks declared cargo weights furnished by air freight forwarders in order to assure the use of accurate load manifests and weight and balance computations?	□ No, Explain
2.4	Is there a control in place to ensure that aircraft were loaded in	□ Yes
	accordance with the load plan?	□ No, Explain
2.5	Does the Certificate Holder have a documented method for assessing the	□ Yes
	impact of any changes made to the controls in the Flight / Load Manifest / Weight and Balance Control process?	□ No, Explain

SAI SECTION 2 – CONTROLS ATTRIBUTE –Drop Down Menu

- 1. No controls specified.
- 2. Documentation for the controls do not identify (who, what, when, where, how).
- 3. Controls incomplete.
- 4. Controls could be circumvented.
- 5. Controls could be unenforceable.
- 6. Resource requirements incomplete (personnel, facilities, equipment, technical data).
- 7. Other.

SAI SECTION 3 - PROCESS MEASUREMENT ATTRIBUTE

Objective: Process measurements are used by the certificate holder to measure and assess its processes, to identify and correct problems or potential problems, and to make improvements to the processes. The questions in this section of the DCT are designed to assist the inspector in determining if the certificate holder measures or assesses information to identify, analyze, and document potential problems with the process. Process measurements are a certificate holder's internal evaluation or auditing of the most important policies, procedures, or instructions and information associated with an element.

To prevent the duplication of work, process measurements are most commonly addressed through a combination of auditing features contained in both the certificate holder's safety program/internal evaluation program (for operations and cabin safety–related issues) and the auditing function of the Continuous Analysis and Surveillance System (for airworthiness or maintenance/inspection–related issues). The director of safety and the quality assurance department often work together to accomplish this function for the certificate holder. This approach requires amendment of the safety program/internal evaluation program audit forms or checklists and the Continuous Analysis and Surveillance System audit forms or checklists to include the specific process measurements for each element.

Tasks			
	To meet this objective, the inspector must accomplish the following tasks:		
1	Review the process measurement questions below.		
2	Review the Certificate Holder's policies, procedures, instructions and information to gain an understanding of the process measurements that it has documented.		
Qu	estions		
	To meet this objective, the inspector must answer the following questions:		
3	Does the Certificate Holder's Flight / Load Manual / Weight and Balance Control process include the following process measurements:		
3.1	Process measurements that would reveal that the Certificate Holder blocks off seats or compartments using procedures in its manual in order to remain within CG limits?	☐ Yes ☐ No, Explain	
3.2	Process measurements that would reveal that weight and balance was computed accurately and within limits?	☐ Yes ☐ No, Explain	
3.3	Process measurements that would reveal that the Certificate Holder randomly checks declared cargo weights furnished by air freight forwarders in order to assure the use of accurate load manifests and weight and balance computations?	☐ Yes ☐ No, Explain	
3.4	Process measurements that would reveal that aircraft were loaded in accordance with the load plan?	☐ Yes ☐ No, Explain	
3.5	Does the Certificate Holder document its process measurement methods and results?	☐ Yes ☐ No, Explain	
3.6	Does the organization that conducts the process measurements have direct access to the person with responsibility for the Flight / Load Manifest / Weight and Balance Control process?	☐ Yes ☐ No, Explain	

SAI SECTION 3 – PROCESS MEASUREMENT ATTRIBUTE –Drop Down Menu

- 1. No process measurements specified.
- 2. Documentation for the process measurements does not identify (who, what, when, where, how).
- 3. Inability to identify negative findings.
- 4. No provisions for implementing corrective actions.
- 5. Ineffective follow-up to determine effectiveness of corrective actions.
- 6. Resources requirements (personnel, facilities, equipment, technical data).
- 7. Other.

SAI SECTION 4 - INTERFACES ATTRIBUTE

Objective: Interfaces are used by the certificate holder to identify and manage the interactions between processes. The questions in this section of the DCT are designed to assist the inspector in determining whether or not interactions between the policies, procedures, or instructions and information associated with other independent processes within the certificate holder's organization are documented. Written policies, procedures, or instructions and information that are interrelated and located in different manuals within the certificate holder's manual system must be consistent and complement each other. For the interfaces to be effectively managed, it is not only important to identify what the interfaces are, but it is imperative to document the specific location of the interfaces within the certificate holder's manual system.

Tasks To meet this objective, the inspector must accomplish the following tasks: Review the interfaces associated with the Flight / Load Manifest / Weight and Balance Control that have been identified along with the individual guestions in the Procedures Section (1) of this data collection tool. Review the Certificate Holder's policies, procedures or instructions and information to gain an understanding of the interfaces that it has documented. **Questions** To meet this objective, the inspector must answer the following questions: NOTE: ALL EXPLANATIONS IN THE DROP DOWN MENU FOR "NO" ANSWERS MUST INCLUDE THE INDIVIDUAL QUESTION NUMBER FROM THE PROCEDURES SECTION (1) OF THIS DATA COLLECTION TOOL AND THE ELEMENT NUMBER(s) OF THE INTERFACES THAT WERE NOT ADDRESSED. Does the Certificate Holder's manual: 4.1 Properly address the interfaces that are identified along with the □ Yes individual questions in the Procedures Section (1)? ☐ No. Explain 4.2 Document a method for assessing the impact of any changes to the □ Yes associated interfaces within the Flight / Load Manifest / Weight and Balance □ No, Explain Control process? 4.3 List additional interfaces identified during the accomplishment of this SAI. Free form text:

SAI SECTION 4 – INTERFACES ATTRIBUTE –Drop Down Menu

- 1. No interfaces specified.
- 2. The following interfaces not identified within the Certificate Holder's manual system:
- 3. Interfaces listed are inaccurate.
- 4. Specific location of interfaces not identified within the manual system.
- 5. Other

SAI SECTION 5 - MANAGEMENT RESPONSIBILITY & AUTHORITY ATTRIBUTE

Objective: The questions in this section of the DCT address the responsibility and authority of the process. They are designed to assist the inspector in determining if there is a clearly identifiable, qualified, and knowledgeable person who is responsible for the process, is answerable for the quality of the process, and has the authority to establish and modify the process. (The person with the authority may or may not be the person with the responsibility.)

iuei	milable, qualified, and knowledgeable person who is responsible for the proce	533, IS		
answerable for the quality of the process, and has the authority to establish and modify the				
process. (The person with the authority may or may not be the person with the responsibility.)				
Tasks Tasks				
	To meet this objective, the inspector must accomplish the following tasks:			
1	Identify the person who has overall responsibility for the Flight / Load Manifest / Weight and Balance Control process.			
2	Identify the person who has overall authority for the Flight / Load Manifest / Weight and Balance Control process.			
3	Review the duties and responsibilities of the person(s), documented in the Certificate Holder's manual.			
4	Review the appropriate organizational chart.			
Questions				
To meet this objective, the inspector must answer the following questions:				
5	Are the following aspects of the Management Responsibility and Authority Attributes addressed in the Flight / Load Manifest / Weight and Balance Control process:			
5.1	Does the Certificate Holder's manual clearly identify who is	□Yes		
	responsible for the quality of the Flight / Load Manifest / Weight and	□ No, Explain		
	Balance Control process?	Name/Title:		
		Ttarrie, Fitter		
5.2	Does the Certificate Holder's manual clearly identify who has	□Yes		
·-	and bander to a stabilish and as although a mall star many disease.	□ No, Explain		
	and information for the Flight / Load Manifest / Weight and Balance	•		
	Control process?	Name/Title:		
5.3	Does the Certificate Holder's manual include the duties and responsibilities	□ Yes		
	of those who manage the work required by the Flight / Load Manifest / Weight and Balance Control process?	□ No, Explain		
	SRRs: 121.135(b)(2)			
5.4	Does the Certificate Holder's manual include instructions and information for	□Yes		
	those who manage the work required by the Flight / Load Manifest / Weight	□ No, Explain		
	and Balance Control process?	- No, Explain		
	SRRs: 121.135(a)(1)			
5.5	Does the Certificate Holder's manual clearly and completely document the	□ Yes		
	authority for this position?	□ No, Explain		
5.6	Does the Certificate Holder's manual clearly and completely	□ Yes		
	document their qualification standards for the person having	□ No, Explain		
	responsibility for the Flight / Load Manifest / Weight and Balance	- , _[
	Control process?	-		
5.7	Does the Certificate Holder's manual clearly and completely	□ Yes		
	document their qualification standards for the person having authority	□ No, Explain		
	to establish and modify the Certificate Holder's policies, procedures,			
	instructions and information for the Flight / Load Manifest / Weight and Balance Control process?			
	and balance Control process:			

5.8 Does the Certificate Holder's manual clearly and completely document the procedures for delegation of authority for the Flight / Load Manifest / Weight and Balance Control process?

4. Other.

SAI SECTION 5 - MANAGEMENT RESPONSIBILITY & AUTHORITY ATTRIBUTE -Drop Down Menu 1. Not documented. 2. Documentation unclear. 3. Documentation incomplete.